

Date: Friday, 08/05/2009 11:23:22 AM
 User: Julie Dawson

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : SUPPORT (412 AFT)
 Job Number : 47820
 Estimate Number : 11060
 P.O. Number :
 This Issue : 08/05/2009 S.O. No. :
 Prsht Rev. : NC Part Number : D28961
 Drawing Number : D2896 UNDER REVIEW
 Project Number : N/A
 First Issue : 08/05/2009 Type : MACHINED PARTS Drawing Revision : B
 Previous Run : 43209 Material :
 Due Date : 15/05/2009 Qty: 20 Um: Each
 Written By :
 Checked & Approved By : JUD 09.05.08
 Comment : Est: B 02.11.26 Reformat; Added P/O; Added mask hole KJ
 Est Rev: C As per Rev B 07-04-16 JLM
 est D 08.03.19 Re-format EC verified by DD

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description :

1.0

DSK080

D2896-1 TURNING DETAIL



Comment: Qty.: 0.5000 Each(s)/Unit Total: 10.0000 Each(s)
 D2896-1 TURNING DETAIL
 Batch: #4340

09/05/17

2.0

HAAS1

HAAS CNC VERTICAL MACHINING #1



Comment: HAAS 1
 Machine as per Folio FA167
 Tumble & Deburr

09/05/22 / DTP 09/05/19

20

3.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

09/05/22 / DTP 09/05/19

20

4.0

QC8

SECOND CHECK



Comment: SECOND CHECK

SP 09/05/30

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



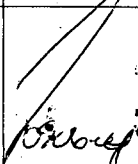
Comment: HAND FINISHING RESOURCE #1

Mask 20.625" and face and bore as per Detail D and note 4 hole prior to paint

AT 09-06-03

→ MASK BORE ONLY 09.05.08
 → MASK EVERYTHING BUT BORE 09.06.04

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
09.05.08	5	NO POWDER COAT , PRIME BORE ONLY				CP 09.05.08 pu OSI 042		

Part No: D2896-1 PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: D Date: 09/06/04
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: 47820		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09.05.28	7	width is 3.765 (3.780 nom) on Qty (2). MAT'L WAS REMOVED TO CORRECT BIN MISPINT	CP 09.05.28 pu OSI 042	Acceptable ENGRAVE Batch #47820 BY HAND	CP 09/05/31	OSI 09/05/30	CP 09.05.28 pu OSI 042	OSI 042

NOTE: Date & initial all entries

Date: Friday, 08/05/2009 11:23:22 AM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SUPPORT (412 AFT)

Job Number: 47820

Part Number: D28961

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

START TIME: _____

OVEN TEMPERATURE: _____

FINISH TIME: _____

N/A CP 09.05.08

7.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

N/A CP 09.05.08

8.0

SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

Prime Bore as per QSI 005 4.2.

RT 09-06-03

9.0

QC14

INSPECT SPRAY PAINT



Comment: INSPECT SPRAY PAINT

09.06.03 (20)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: X file as y

(X20)
RT 09-06-03

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/06/04 JF

Job Completion



MF
09-06-03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 47820
Description: Support		Part Number: D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
HAAS Section								
AA	2.152	2.172		2.162	2.162			
AB	2.340	2.360	2.347	2.347	2.345	2.3525	2.3525	2.354
AC	3.550	3.560		3.550	3.540	3.555	3.555	3.557
AD	3.770	3.790		3.780	3.782	3.781	3.782	3.783
AE	0.065 x 0.315	0.085 x 0.335		0.075 x 0.325	0.075 x 0.325	0.75 x 0.325	0.75 x 0.325	0.75 x 0.325
AF	1.42	1.48		1.445	1.449	1.450	1.452	1.452
AG	0.833	0.853		0.843	0.844	0.847	0.846	0.848
AH	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AI	0.261	0.266		0.262	0.262	0.262	0.262	0.262
AJ	0.189	0.194		0.192	0.192	0.192	0.192	0.192
AK	1.990	2.010		2.000	2.002	2.000	2.000	2.000
AL	0.625	0.630		0.6265	0.6265	0.627	0.627	0.6265
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AO	0.928	0.948						
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject								

Measured by: DJP	Date: 09/05/19
Audited by: SP	Date: 09/05/19
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	

DART AEROSPACE LTD		Work Order: 47820
Description: Support		Part Number: D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				6	7	8	9	5 10
HAAS Section								
AA	2.152	2.172						
AB	2.340	2.360		2.356	2.353	2.351	2.357	2.357
AC	3.550	3.560		3.559	3.557	3.556	3.558	3.558
AD	3.770	3.790		3.784	3.781	3.782	3.792	3.782
AE	0.065 x 0.315	0.085 x 0.335		0.075 x .325	0.075 x .325	0.075 x .325	0.075 x .330	0.075 x .350
AF	1.42	1.48		1.452	1.450	1.450	1.459	1.450
AG	0.833	0.853		0.851	0.849	0.849	0.845	0.847
AH	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AI	0.261	0.266		0.262	0.262	0.262	0.2615	0.2615
AJ	0.189	0.194		0.192	0.192	0.192	0.1915	0.1915
AK	1.990	2.010		2.004	2.000	1.999	2.002	2.001
AL	0.625	0.630		0.6265	0.6265	0.6265	0.6265	0.6265
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AO	0.926	0.946						
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject								

Measured by: <i>SA/4</i>	Date: 09/05/20 / 09/05/21
Audited by: <i>ST</i>	Date: 09/05/20
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	<i>SA</i>

DART AEROSPACE LTD		Work Order: 47820
Description: Support		Part Number: D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				11	12	13	14	15
HAAS Section								
AA	2.152	2.172						
AB	2.340	2.360		2.354	2.354	2.356	2.351	2.352
AC	3.550	3.560		3.556	3.558	3.556	3.559	3.558
AD	3.770	3.790		3.781	3.784	3.784	3.785	3.793
AE	0.065 x 0.315	0.085 x 0.335		0.075 x 0.325	0.075 x 0.325	0.075 x 0.335	0.075 x 0.335	0.075 x 0.335
AF	1.42	1.48		1.449	1.449	1.454	1.448	1.448
AG	0.833	0.853		0.846	0.848	0.851	0.847	0.852
AH	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AI	0.261	0.266		0.262	0.262	0.262	0.2615	0.262
AJ	0.189	0.194		0.192	0.192	0.1915	0.1915	0.192
AK	1.990	2.010		2.003	1.993	1.997	2.001	1.997
AL	0.625	0.630		0.626	0.626	0.626	0.626	0.627
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AO	0.020	0.046						
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject								

Measured by: <i>[Signature]</i>	Date: 09/05/22
Audited by: <i>[Signature]</i>	Date: 09/05/30
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
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DART AEROSPACE LTD		Work Order:	47820
Description: Support		Part Number:	D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1	

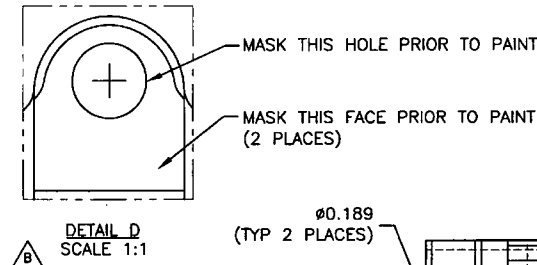
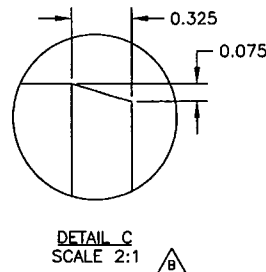
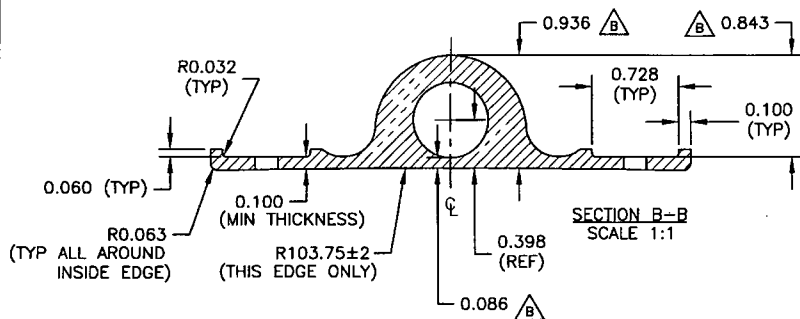
FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				16	17	18	19	20
HAAS Section								
AA	2.152	2.172						
AB	2.340	2.360		2.351	2.351	2.3545	2.354	2.353
AC	3.550	3.560		3.556	3.557	3.555	3.557	3.559
AD	3.770	3.790		3.785	3.786	3.784	3.784	3.786
AE	0.065 x 0.315	0.085 x 0.335		0.075 x 0.325	0.075 x 0.325	0.075 x 0.325	0.075 x 0.325	0.075 x 0.325
AF	1.42	1.48		1.461	1.452	1.451	1.452	1.452
AG	0.833	0.853		0.849	0.850	0.849	0.849	0.849
AH	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AI	0.261	0.266		0.262	0.262	0.262	0.262	0.262
AJ	0.189	0.194		0.192	0.192	0.192	0.192	0.192
AK	1.990	2.010		2.005	2.008	2.006	2.002	2.003
AL	0.625	0.630		0.627	0.627	0.627	0.627	0.627
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AO	0.926	0.946						
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject								

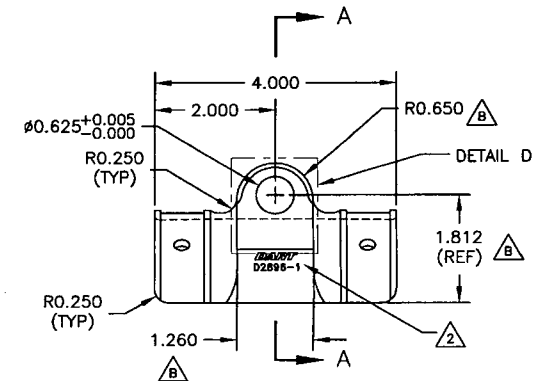
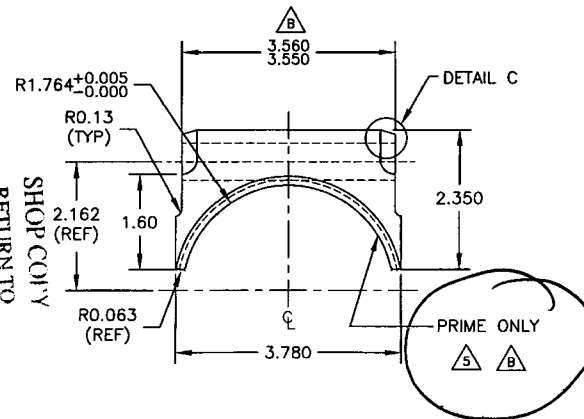
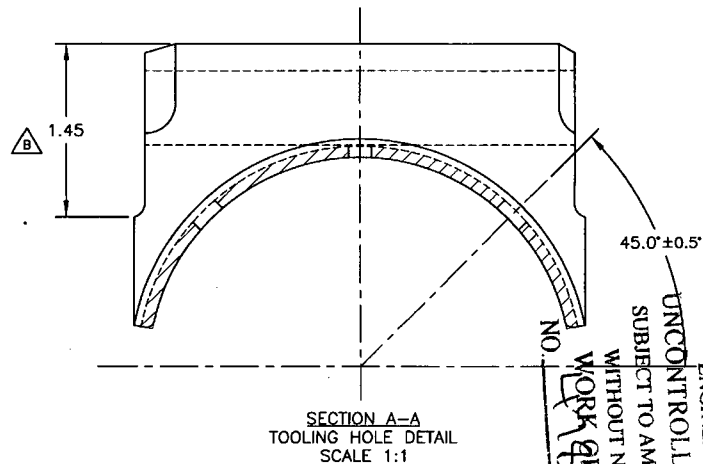
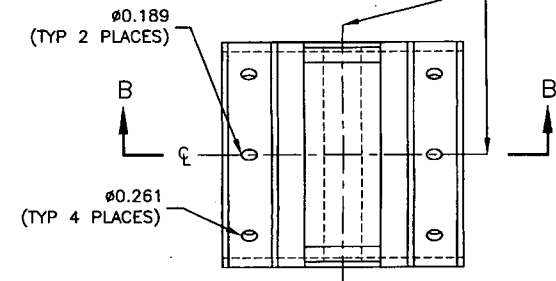
Measured by:	<i>[Signature]</i>	Date:	09/05/23
Audited by:	<i>[Signature]</i>	Date:	09/05/30
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	<i>[Signature]</i>



RELEASED
07.04.12
PER BEN 946

HOLES WITHIN 0.005 OVER ENTIRE LENGTH



D2896-1

- 1) MATERIAL: 17-4 PH STAINLESS STEEL
HEAT TREAT TO H900 CONDITION
(900°F FOR 1 HR, AIR COOL)
MIN UTS = 170 KSI (38 HRc)
- 2) IDENTIFY WITH DART LOGO AND PART NUMBER IN THIS AREA
WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP
- 3) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) FINISH: ~~POWDER COAT WHITE (REF 4.3.5.2) PER DART QSI 005-4.3~~
PRIME INSIDE SURFACE AS SHOWN PER DART QSI 005 4.2
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES

UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
NO. 1 WORK ORDER

SHOP COPY
RETURN TO
ENGINEERING

D2896-1

UNDER REVIEW
07.03.11
NO MORE POWDER
COAT

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PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

B	07.03.19	INCORP. A1-A4, FINISHING NOTES
A	01.10.19	NEW ISSUE
DESIGN	AP	DART DART AEROSPACE LTD. WARRICKSURY, OXFORD, CANADA
CHECKED	AP	DRAWING NO. D2896 REV. B
DATE	07.03.19	TITLE SUPPORT SHEET 1 OF 1 SCALE 1:2